

- 1. The purpose of this trip report is to summarize the highlights of our trip to Enewetak and JA during the period 3-8 Dec 78, and to insure that required FCDNA follow-up actions are documented. This report is a joint FCL-FCP effort, with the tabs addressing Coconut Tree Planting Alternatives; Demobilization; Early Resettlement; Runit Cleanup; and Closing Ceremonies prepared by COL John Hemler.
- a. FCDNA personnel who made the trip included Gen Tate; COL Hemler, COL DiGrazia; COL Peters; COL Sanches; and CFT Stecher. COL Peters and COL Sanches departed in late November to provide additional time for initial orientation of COL Peters, and to participate in/provide feedback on preliminary preparations/meetings for scheduled coconut tree planting alternatives discussions with key personnel, including the Enewetak Council. The remainder accompanied Admiral Monroe and his party from Hawaii to Enewetak and return. COL Bauchspies, ComdrJTG, and Mr. Ted Mitchell, Chief Counsel, Micronesian Legal Service, also returned from Enewetak with Admiral Monroe's party in order to attend inflight meetings.
- b. Prior to the trip, LCDR McKee, Flag Lieutenant, HQ DNA, distributed a booklet concerning the trip (TAB A). Of primary interest in the booklet are the itineraries followed at Enewetak and JA, and a list of the personnel who traveled as a part of Admiral Monroe's party.
- c. Another key person, not listed in the booklet, who participated in various meetings, briefings, and tours at Enewetak was Mr. Joe Deal of DOE HQ. Mr. Deal had proceeded to Enewetak several days prior to Admiral Monroe's party to discuss, inter alia, coconut tree planting alternatives with Mr. Ted Mitchell and the Enewetak Council.
- 2. The briefings at Enewetak on Monday, 4 Dec, started with an update by JTG HQ on cleanup operations. The primary effort of the JTG during the past six months has been soil cleaning. This has been highly successful. The status of Aomon; Enjebi; Boken; Aomon Crypt; and Lujor are summarized in the JTG Fact Sheet at TAB B. Details concerning surface cleanup of Enjebi are at TAB C. In addition, the Pace Crater work is 62% accomplished, and is scheduled for completion by the end of CY78 (dependent upon bulldozer availability) (TAB D). Soil cleanup assets are also expected to be available for cleanup of a portion of Runit. This subject is addressed in more detail later in this report.
- a. Discussions during the briefing included a question concerning the appearance of Enjebi--does it have "great gaping holes"? The reply was: "It is apparent that we have worked it over." There was also some discussion concerning South Runit, and whether or not it might be under 40 pCi/gm now.



- b. The Aomon Crypt magnetometer survey results were briefly summarized, to include the fact that metal was detected outside the crypt boundaries. The core sampling is progressing well. Laboratory analysis results of the samples have not been received, but IMP recordings so far have not exceeded 400 pCi/gm. The depth of the drillings has ranged from 7-8 feet to 30 feet. A question concerning the laying of drain slabs was answered to the effect that the excavation concept does not require drain slabs until we reach the end of the crypt. The excavated soil will be placed within the crypt boundary.
- c. The next briefing addressed debris removal. This was described by LTC Prall as a "real success story." Twenty-one islands have been turned over since 20 Jun 78, in addition to 14 islands which had been cleaned and accepted prior to that time. A total of 35 of the 40 islands has been accepted. The goal is to remove all debris "larger than a man's hand." The remaining islands are Enjebi; Lojwa; Runit; Medren; and Enewetak. Data concerning the current status and expected completion dates of these five islands is at TAB E. There was some discussion concerning the amount of contaminated versus uncontaminated debris as addressed in the OPLAN. A summary of how much debris of each type which has been removed versus the amount estimated in the Environmental Impact Statement is at TAB F. A question was asked concerning the split between DOD and DOI on removal of noncontaminated debris. The answer was that the Master Index is used. It was also asked: "Will you continue removing debris on Medren while DOI is working?" Answer: "Yes, we have the LARCs." It was commented that the big issue in demobilization is the availability of opportune sealifts. During the summary of the cleanup operations, both soil and debris removal, it was stated that 31 of 40 islands will meet 40 pCi/gm or less; 4 islands will meet 80 pCi/gm or less; and the remainder will meet the 160 pCi/gm criteria. This was an impressive summary statement, and vividly illustrated the amount of work which has been done and the progress made. Two-thirds of the soil has been hauled by bulk-haul.
- d. Mr. Chuck Nelson then gave a short briefing on rehabilitation operations. He said the people can see the homes being built and are impressed and thankful. The contractor, AIC, has 70 employees, of which 35 are Marshallese. They are involved in construction of houses and the pier at Medren. Thirty-one homes will be built at Medren; 8 on Japtan; and 78 on Enewetak, for a total of 117 homes. Medren and Japtan are expected to be completed by May 79. In addition, coconut nurseries have been established at Enewetak (11,000 seedlings) and Medren (19,000 seedlings). Ujelang has a nursery for 1100 breadfruits.
- e. The briefings were followed by a tour of Enewetak, Medren, and the Southwest Islands, with a stop at Ikuren (Glenn). A visit to 84th Engineer Bn maintenance facilities revealed a lot of deadlined equipment and elicited the statement from CW3 Russel that "We need repair parts." The tour of Enewetak included a walk through the homes under construction. The tour of Medren illustrated tremendous progress in cleanup of that island. Ikuren was heavily overgrown with trees and underbrush, which confirmed that planting coconuts there would require a major engineering effort.



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- f. The scheduled discussion of coconut planting alternatives was cancelled. This is still an unresolved issue involving numerous complex factors. It will be addressed later.
- (1) The first briefing after supper concerned demobilization plans. The most significant part of that briefing/discussion was that Admiral Monroe had thought that 15 April was the "final date." Instead, he learned that personnel will be at Enewetak until 1 Jun 80 with the rollup phase. After 15 Apr 80, there will be no DOD people on the atoll except for one Field Command representative who will stay until 1 June. The H&N Base Camp will retain about 45 people, who will be gradually phased down in number to zero on 1 Jun 80.
- (2) Admiral Monroe was concerned with the cost of the rollup phase. This was later provided by COL Hemler as \$450,000. Additional details are in TAB Q.
- (3) The Director, DNA, cautioned that we must make sure we have enough opportune sealift. He wanted to make sure that cubic feet have been counted and every item identified to go on each ship. He commented that it took four years to get all the equipment here, and he was concerned that we will be able to get it all off. A JTG Fact Sheet concerning Demobilization Preparations is at TAB G.
- g. The update briefing on the Aomon Crypt revealed that the core sampling drilling is proceeding at about 70 linear feet per day. This equates to several holes per day, dependent upon depth. A 45-ton crane with a 1.5 cubic foot clamshell will perform the actual excavation. (The clamshell is on the barge enroute to Enewetak.) The JTG estimates an excavation of 8000 cubic yards if a "saucer" shape is removed (the original tidal pond), and about 16,000 cubic yards if sheet-pile containment is used. It was indicated that personnel present at the time said a witness (nicknamed "German") said a clamshell was used to do some digging prior to placing steel/debris in the crypt. Additional data concerning the current status of Aomon Crypt operations is at TAB H.
- h. The Boken/Enjebi Subsurface Excision/Cleanup briefing indicated that 1406 cubic yards of subsurface soil must be removed from Boken. There are three areas on Boken where subsurface contamination exceeds 160 pCi/gm. The excision will take about two weeks, and will start the second or third week in December. On Enjebi, a total of 1307 cubic yards of subsurface contamination must be removed. It was scheduled to start 5 Dec 78. Additional data concerning subsurface contamination on Boken and Enjebi is at TAB I.
- i. The main point of interest in the briefing/discussion of the Enjebi Hilton and other slab/wall contamination was that the Master Index can be modified if recommended by the CJTG and coordinated with the TTPI representative. Admiral Monroe wants to be informed when action taken on foundations is different from that specified in the Master Index. The Enjebi Hilton contamination will be chipped to about 1/4" (about 150 square yards of surface) and covered with two



feet of soil. It was also pointed out during this briefing that any time there is a hint of beryllium contamination, the Director wants to be notified. He also wants it given priority treatment. The air sampling for beryllium program on Enjebi is scheduled to start mid-Jan 79. Additional data concerning beryllium air sampling is at TAB J.

- j. Cactus Crater Plans included a discussion of the crater dome, which is expected to be 25 feet tall, with a radius of 185 feet. Three bags of cement per cubic yard are being used in the tremie operation, whereas two bags of cement per cubic yard will be used in the soil-cement mixture within the dome. Normal concrete uses six bags of concrete per cubic yard. This led the Director to ask: "How long will the crater last?" Also, during the soil-cement operation, the JTG will need two disc harrows (one is a spare) and a power screed. The JTG prefers that the disc harrows be purchased in Hawaii so they can get spare parts. With about 48,600 bags of cement on the December barge, availability of cement does not appear to be a problem. Additional data concerning the current status of cement and attapulgite as provided by the JTG J-4 is at TAB K.
- 3. Tuesday, 5 December was devoted to a tour of Runit, Lojwa, Bijire, Aomon, Enjebi, and Boken by the Director and other key personnel. Since there was mot room for everyone on the helicopters, COL Hemler and I rode an LCM-8 to Lojwa. From where we were able to visit the Aomon Crypt; the Kickapoo area; and the Pace Crater. We also visited the maintenance shop at Lojwa and again received information to the effect that the bottleneck in maintenance was a lack of repair parts.
- a. While at the Aomon Crypt, we received a briefing concerning the core drilling equipment and operations. Also learned that the three personnel from the Mobile Engineer District are still persisting in their desire to go home for Christmas. I explained directly to them why this was absolutely not possible. Every day is critical on the Aomon Crypt operation. I will follow through on this problem directly with the Mobile Engineer District.
- b. From Lojwa we rode a Boston Whaler to intercept an LCU which was proceeding from Enjebi to Runit with a load of contaminated soil. While at Runit we visited the Cactus Crater. Was briefed by an Air Force EOD technician concerning a potential explosive safety problem with old projectiles/mines which are sometimes found in the contaminated soil transported to Runit. Later discussed it with the Comdr, 84th Engr Bn and the Comdr, JTG. All personnel at Runit are again being instructed to stop any operation immediately in which explosive ordnance is discovered, and call EOD. From Runit we rode an LCM-8 to Enewetak.
- c. The evening of 5 Dec was devoted to a series of briefings/discussions. The first briefing was a Health Physics update. The topics discussed were Nuclear Radiation Safety; Air Sampling Program; Lab Analysis; Personnel Air Samples; Dosimetry Program; and the Urinalysis Program.



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- (1) A question was asked: "Have we saved the filter papers?" Answer: "Yes--every filter."
- (2) A discussion took place on urinalysis. It was noted that Brooke urinalysis is taking 3-4 months. A question was asked about the possibility of going to a commercial firm to speed the process, for at least a part of the samples, if not all of them.
- (3) The Director indicated he would like to get a report from Field Command on urinalysis going back to 1977.
- (4) There was also a discussion of the inconsistency of protective clothing worn by those working on the tremie operation, as observed by the Director during his visit to Runit. The JTG will correct this inconsistency.
- (5) JTG Fact Sheets concerning Radiation Safety; High Exposure Readings; Air Sampler Status; Radiation Control Committee Actions; Administrative Doses for Personnel; and Environmental Background Measurements, are at TAB L.
- d. The next briefing was an OSHA/Industrial Safety update. It was pointed out that the number of work-related lost time accidents has remained low despite a steady population increase on the Atoll from '77 to '78. The high number of accidents which once took place near Operation Switch time have been leveled off and reduced. Safety training was also discussed. Additional data concerning the OSHA program at Enewetak Atoll is at TAB M.
- e. The OSHA briefing was followed by a DOE Rad Lab presentation by Mr. Paul Dunaway, ERSP Manager. The briefing did not get very far. He indicated that IMPing on Medren has stopped, and that Medren is OK to build houses and live there. Following that, Admiral Monroe asked: "Why don't we find out more about strontium and cesium on Enjebi?" The Admiral indicated we had moved a lot of soil from Enjebi. Admiral Monroe asked about analyzing some coconuts on the Northern Islands.
- (1) The above question generated a long discussion, primarily between Roger Ray and Admiral Monroe, which did not result in any firm commitments from DOE to provide additional data as requested.
- (2) Some of the points made by Mr. Ray were that it isn't that easy--more time is needed--he needs to know more about what we want to know, and so on. He indicated that while we may have taken about 20% of the cesium off of Enjebi, "we have not made a significant change." He also indicated that the IMP checks for gamma rays from americium and cesium. Strontium is a beta emitter.
- (3) Following the discussion, Nr. Dunaway asked if the Admiral would like a copy of a handout concerning the radiological condition of the islands. That handout is at TAB N.



- 4. The flight from Kwajalein to Johnston Atoll and Johnston Atoll to Hawaii was used for conferences on a number of subjects. The list of subjects and attendees distributed by MAJ (P) Pickler at Kwajalein is at TAB O. Those subjects, and the Tabs which address them in more detail, as prepared by COL Hemler, are listed below. It was also indicated that the next trip to Enewetak by Admiral Monroe and his party will be 29 May 79.
  - a. Coconut Tree Planting Alternatives (TAB P).
  - b. Demobilization (TAB Q).
  - c. Early Resettlement (TAB R).
  - d. Runit Cleanup (TAB 5).
  - e. Closing Ceremonies (TAB T).
- 5. While at Johnston Island, at an evening working session in the Point House, thirteen subjects were discussed as outlined in the Talking Papers at TAB U., The working session went rapidly and smoothly, with all subjects covered in about 90 minutes, and with a minimum of controversy. Some highlights:
  - a. Environmental laws apply to Johnston Island.
- b. FCJ will submit a Form 1391 thru channels to obtain approval for maintenance of the airfield as recommended by the "Airfield Pavement Evaluation" of the Air Force Civil Engineering Center, Tyndall AFB, Florida, dated 29 Sep 78. This will involve removal of the top 2" of the cold mill overlaid portion of the runway, and applying a very thin overlay to that portion. This project will undoubtedly involve substantial funding, and is beyond the approval authority of JA and probably beyond the authority of FCDNA. It will have to be processed through channels for review and approval.
- c. FCJ will submit a plan to FCDNA for dismantling of the LE-1 LOX and Fuel Trailer Shelters, from which the contaminated paint is currently peeling. Gen Tate directed that Field Command coordinate with DOE/NVO when this FCJ proposal is received.
- d. During a discussion of DPDO sales, Gen Tate directed that a letter be sent to Battle Creek confirming that there will be no on-island sale of equipment at Enewetak (as verbally agreed to at the Demobilization Conference).
- e. Also while at JA, COL Hemler and I were able to observe the barge which will carry supplies to Enewetak. Saw the 1.5 cubic yard clamshell and concrete. Was told the sheetpile was on board, but could not see it. Also visited the LE-1 site to observe the peeling paint.



- 6. While at Hawaii in the FCH Conference Room, Gen Tate reviewed with COL Bauchspies, COL Hemler, and COL DiGrazia the events of the Pacific Trip. He also reviewed with COL Bauchspies the events of the island tour on 5 Dec 78. COL Bauchspies was tasked directly with a number of actions, such as insuring proper protective equipment for those working on the tremie operations; painting latrine walls; and repairing leaking roofs at Lojwa. A summary of FCDNA followup actions required, with assigned staff responsibilities are summarized below:
  - a. Write a trip report. (FCL, assisted by FCP.)
- b. Document the actions required on Runit. (If we are able to clean half of Runit, it may take the edge off of any claim that there are some islands no longer in Enewetak Atoll.) (FCP, assisted by FCZ.) (See Tab S.)
- c. Call Mobile Engineer District to solve the problem of the workers there wanting Christmas leave. (FCL).
- d. Obtain Disc Harrows and a Power Screed for Enewetak (FCL and FCC). (Provide fund cite to FCR; FCR will procure the equipment.)
- e. Write to DPDO to confirm that there will be no on-island sale of equipment at Enewetak (FCL).
- f. Determine who is to pay for the IMP survey of JA (FCC, assisted by FCL and FCP). NOTE: I informed Gen Tate that we were operating under the assumption FCDNA would have to pay for it.
- g. Find out who is responsible to pay for the core-drilling equipment at Enewetak. Currently funded by FCDNA. Roger Ray is against DOE paying. So are Bruce Church and Tommy McCraw. Gen Tate's guidance: We ought to keep trying. Gen Tate is willing to send a letter to DOE (signed by Admiral Monroe or Gen Tate), if we are certain it is DOE's responsibility. (FCC, assisted by FCL, FCP, and FCZ).
- h. Telephone Bruce Church to see what DOE's intent is about buying the coredrilling equipment for taking core samples after backfill. (FCL).
- i. Notify Adm Monroe anytime there is a hint of beryllium contamination; give it priority treatment. (FCR and FCZ).
- j. Coordinate with Scott Stege and inform FC with info to HQ DNA if there are changes in Master Index items. (FCR, coordinated with FCL).
- k. Find out how long the Cactus Crater will last. (Gen Tate will ask Gen Roush.) Follow it up with a message. Inform Adm Monroe. (FCL, assisted by FCZ).
- 1. Check with DOE concerning soluble versus insoluble plutonium and suburanics. The objective is to get a better understanding of how transuranics and suburanics filter to the root structures. I believe this is tied in with the subject of possible reduction of suburanics because of the removal of



transuranics. (COL Sanches is supposed to have drafted a query on this subject during his return trip from Enewetak, as directed by Gen Tate.) (FCZ).

- m. Provide Adm Monroe a report on urinalysis going back to 1977. Present a briefing to Adm Monroe on all aspects of Health Physics in Jan 79. (FCZ, assisted by FCL and FCP).
- n. Determine if OEHL at Brooke AFB can do urinalysis faster. Arrange to go to another lab if necessary. (Gen Tate will send a letter to the Commander of the lab.) (FCZ, in coordination with FCR and FCL).
- o. Insure that we have enough barges and opportune sealift to retrograde from Enewetak all the equipment necessary. (FCL).
- p. Look at boat requirements and demobilization plans to see if we can delay the last boats as much as possible to support coconut tree planting. (FCL, assisted by FCP and FCZ).
- q. Prepare for an appropriate Closing Ceremony to be held between 2-14 Apr 80. (FCP, assisted by FCZ and coordinated with FCR).
- r. Purchase two church bells (or other appropriate gifts) to present one each to the dri-Enewetak and dri-Enjebi. Coordinate with DOE/PASO concerning funding which is to be provided from the excess funds of the Pau Hana Club. Obtain FC approval of the gift, and approval of an appropriate inscription on each gift. (FCL, assisted by FCR, FCC, FCP, and FCZ).
- s. Send a letter to FC with debris removal estimates, with a copy to the Director, DNA. (FCR).
  - t. Get copies of EG&G Calibration Records. Dr. Harris can help. (FCZ).
- u. Submit a Form 1391 thru channels to obtain approval for maintenance of the airfield. (FCJ).
- v. Submit a plan to FCDNA for dismantling LE-1 LOX and Fuel Trailer Shelters (FCJ). Coordinate the plan with DOE/NVO (FCL).
- 7. It was a worthwhile and informative trip. It was most satisfying to observe the tremendous progress which has been made in the Enewetak Cleanup, and the professional management actions on-going at JA. It was also a pleasant experience to sense the warm friendship of the Marshallese and their positive feelings



about the cleanup and rehabilitation efforts underway. It was a disappointment that the coconut tree planting decision was not made. However, Admiral Monroe that is determined to pursue the resolution of that problem vigorously.

Director, Logistics

TABS A - U

CF:

FCP (3 cy)

FCZ

FCC

**FCS** 

**FCR** 

**FCJ** 

**FCH** 

**FCLL** 

**FCLS** 

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